THAT WHICH IS CLAIMED:

1. A method of determining an angular position of a target, the method comprising the steps of:

scanning the target with scanning signals at crossrange beam positions such that target data is received from a plurality of beam positions; and

determining a target data relationship between at least two beam positions to determine the angular position of the target relative to one beam position.

2. A method according to Claim 1, further comprising the step of determining a first beam position with a first target data value greater than a second target data value of a second beam position preceding the first beam position and greater than a third target data value of a third beam position following the first beam position, and wherein the target data relationship is determined between the first, second, and third beam positions to determine the angular position of the target relative to the first beam position.

3. A method according to Claim 2 wherein scanning the target comprises receiving target data from at least three consecutive beam positions, and wherein determining the first beam position defines the second beam position as a beam position immediately preceding the first beam position and the third beam position as a beam position immediately following the first beam position.

4. A method according to Claim 2 wherein determining the target data relationship comprises determining a difference between the second target data value and the third target data value.

5. A method according to Claim 4 wherein determining the target data relationship comprises dividing the difference by the first target data value to determine a normalized quotient.

6. A method according to Claim 5 wherein scanning the target comprises scanning the target with a radar device, and wherein determining the target data relationship comprises multiplying the normalized quotient by a constant of the radar device to determine the angular position of the target relative to the first beam position.

7. A method according to Claim 6 further comprising an initial step of calibrating the radar device to determine a value for the constant used in determining the target data relationship.

8. A method according to Claim 7 wherein calibrating the radar device further comprises scanning a trial target at a known angular position relative to the radar device to determine the value of the constant.

9. A method according to Claim 2 wherein scanning the target comprises transmitting scanning signals having a predetermined beamwidth, wherein the beam positions are separated by an angular distance that is generally half the beamwidth of the scanning signals.

10. A method according to Claim 2 wherein determining the first beam position comprises receiving the first target data value which is greater than a threshold value.

11. A method according to Claim 1 wherein determining the target data relationship comprises curve-fitting the target data values to determine the angular position of the target.

12. A method of determining an angular position of a target with a radar device, the method comprising the steps of:

scanning the target with radar signals at crossrange beam positions such that target data is received from at least three consecutive beam positions;

determining a first beam position with a first target data value greater than a second target data value of a second beam position immediately preceding the first beam position and greater than a third target data value of a third beam position immediately following the first beam position;

determining a difference between the second target data value and the third target data value;

dividing the difference by the first target data value to determine a normalized quotient; and

multiplying the normalized quotient by a constant of the radar device to determine the angular position of the target relative to the first beam position.

13. A method according to Claim 12 wherein scanning the target comprises transmitting radar signals having a predetermined beamwidth, wherein the beam positions are separated by an angular distance that is generally half the beamwidth of the radar signals.

14. An apparatus for determining an angular position of a target, the apparatus comprising:

processing circuitry for: (i) receiving target data from a plurality of beam positions traversed during scanning of the target with scanning signals at crossrange beam positions; and (ii) determining a target data relationship between at least two beam positions to determine the angular position of the target relative to one beam position.

15. An apparatus according to Claim 14 wherein the processing circuitry determines a first beam position with a first target data value greater than a second target data value of a second beam position preceding the first beam position and greater than a third target data value of a third beam position following the first beam position, and wherein the target data relationship is determined between the first, second, and third beam positions to determine the angular position of the target relative to the first beam position.

16. An apparatus according to Claim 15 wherein the processing circuitry receives target data from at least three consecutive beam positions, and wherein the processing circuitry defines the second beam position as a beam position immediately preceding the first beam position and the third beam position as a beam position immediately following the first beam position.

17. An apparatus according to Claim 15 wherein the processing circuitry determines a difference between the second target data value and the third target data value.

18. An apparatus according to Claim 17 wherein the processing circuitry divides the difference by the first target data value to determine a normalized quotient.

19. An apparatus according to Claim 18 wherein the target is scanned with radar signals transmitted by a radar device, and wherein the processing circuitry multiplies the normalized quotient by a constant of the radar device to determine the angular position of the target relative to the first beam position.

20. An apparatus according to Claim 19 wherein the processing circuitry is capable of calibrating the radar device to determine a value for the constant used in determining the target data relationship.

21. An apparatus according to Claim 20 wherein the processing circuitry is capable of calibrating the radar device by scanning a trial target at a known angular position relative to the radar device to determine the value of the constant.

22. An apparatus according to Claim 15 wherein the processing circuitry facilitates the transmission of scanning signals having a predetermined beamwidth, wherein the beam positions are separated by an angular distance that is generally half the beamwidth of the scanning signals.

23. An apparatus according to Claim 15 wherein the processing circuitry is capable of receiving the first target data value which is greater than a threshold value.

24. An apparatus according to Claim 14 wherein the processing circuitry curve-fits the target data values, when determining the target data relationship, to determine the angular position of the target.

25. A computer program product for determining an angular position of a target, the computer program product comprising a computer-readable storage medium having computer-readable program instructions stored therein, the computer-readable program portions comprising:

a first executable portion for scanning the target with scanning signals at crossrange beam positions such that target data is received from a plurality of beam positions; and

a second executable portion for determining a target data relationship between at least two beam positions to determine the angular position of the target relative to one beam position.

26. A computer program product according to Claim 25 wherein the second executable portion is further capable of determining a first beam position with a first target data value greater than a second target data value of a second beam position preceding the first beam position and greater than a third target data value of a third beam position following the first beam position, and wherein the target data relationship is determined between the first, second, and third beam positions to determine the angular position of the target relative to the first beam position.

27. A computer program product according to Claim 26 wherein the first executable portion is further capable of receiving target data from at least three consecutive beam positions, and wherein the second executable portion is further capable of defining the second beam position as a beam position immediately preceding the first beam position and the third beam position as a beam position immediately following the first beam position.

28. A computer program product according to Claim 26 wherein the second executable portion is further capable of determining a difference between the second target data value and the third target data value.

29. A computer program product according to Claim 28 wherein the second executable portion is further capable of dividing the difference by the first target data value to determine a normalized quotient.

30. A computer program product according to Claim 29 wherein the first executable portion scans the target with a radar device, and wherein the second executable portion is further capable of multiplying the normalized quotient by a constant of the radar device to determine the angular position of the target relative to the first beam position.

31. A computer program product according to Claim 30, further comprising an initial executable portion prior to the first executable portion, wherein the initial executable portion calibrates the radar device to determine a value for the constant used in determining the target data relationship.

32. A computer program product according to Claim 31 wherein the initial executable portion is further capable of scanning a trial target at a known angular position relative to the radar device to determine the value of the constant.

33. A computer program product according to Claim 26 wherein the first executable portion is further capable of transmitting scanning signals having a predetermined beamwidth, wherein the beam positions are separated by an angular distance that is generally half the beamwidth of the scanning signals.

34. A computer program product according to Claim 26 wherein the second executable portion is further capable of receiving the first target data value which is greater than a threshold value.

35. A computer program product according to Claim 25 wherein the second executable portion curve-fits the target data values to determine the angular position of the target